



Metropolitan Transportation Plan 2045 Update Briefing

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Welcome to our Metropolitan Transportation Plan (MTP) 2045 Update briefing. During this presentation I will provide a brief summary about how we drafted our Dover/Kent County Metropolitan Planning Organization (D/KC MPO), Innovation 2045 MTP.

Agenda

- ▶ D/KC MPO Innovation 2045 MTP Overview
- ▶ 2045 MTP (21 slides)
 - ▶ Chapter I
 - ▶ Chapter II
 - ▶ Chapter III
 - ▶ Chapter IV
 - ▶ Chapter V
 - ▶ Chapter VI
 - ▶ Next steps.
- ▶ Questions?

These are the points we will review during this presentation. I will begin with a brief summary regarding our Innovation 2045 MTP update as presented to this group back in December 2019; the development of each chapter within the Innovation 2045 MTP; and conclude with remaining steps for the document.

MTP Overview (what is the MTP?)

- ▶ A **long-range plan** (20+-year planning horizon).
- ▶ Details **goals and objectives for Kent County's transportation network**.
- ▶ Identifies how our **multi-modal transportation system** (including transit, highway, bicycle, pedestrian, and accessible transportation) will meet the region's **economic, transportation, development and sustainability goals**.
- ▶ Must be **fiscally constrained** (sufficient funds (Federal, State, local, and private) to implement proposed transportation system improvements).
- ▶ Must include **air conformity analysis** if in non-attainment area.

As a reminder, the Innovation 2045 MTP is a 20-25 year long range transportation plan that identifies how the region intends to invest in the transportation system. Prepared through active engagement with the public and stakeholders using an approach that considers how roadways, transit, non-motorized transportation, and intermodal connections are able to improve the operational performance of the multimodal transportation system. Accordingly, the MTP must cover performance measures and targets and include a report evaluating whether the condition and performance of the transportation system is meeting those targets.

The plan also considers information such as:

- Regional land use, development, housing, and employment goals and plans.
- Projected demand for transportation services over 20 years.
- Policies, strategies, and projects that the MPO recommends for the future.
- Cost estimates and reasonably available financial sources for operation, maintenance, and capital investments (see Financial Planning and Programming).
- Ways to preserve facilities and efficiently use the existing system.

Finally, since Kent County is considered as a nonattainment metropolitan area for Ozone, the MTP must also conform to the State Implementation Plan (SIP) for air quality. This is accomplished by analyzing proposed regionally significant and non exempt road projects listed in the MTP against potential ozone produced by vehicles traveling on those new roads.

MTP Overview (previous MTP's?)

D/KC MPO Long Range Plans				
MPO Long Range Transportation Plans	Date Adopted	Proposed Transportation Projects		Contractor Support
1996 Long Range Transportation Plan- 2020- <i>Getting From Here to There</i>	September 25, 1996	45		Yes- JHK & Associates
2001 Long Range Transportation Plan- 2025- <i>Getting From Here to There</i>	July 5, 2001	71	27-Highway 31-Multi-Modal 13-Studies	No
2005 Long Range Transportation Plan- 2030- <i>Moving Forward Together</i>	May 11, 2005	105	45-Highway 34-Multi-Modal 26-Studies	No
2009 Regional Transportation Plan- 2030- <i>Moving Forward Together</i>	January 28, 2009	64	38-Highway 6-Transit 20-Planning Studies	Yes- Parsons Brinkerhoff Quade & Douglas; and Wordsworth Communications
2013 Metropolitan Transportation Plan- 2040 Update- <i>Moving Forward Together</i>	January 1, 2013	58	52-Highway 6-Transit	No
2017 Metropolitan Transportation Plan- <i>Vision 2040</i>	January 1, 2017	68	41-Roadway 5- Safety 15- Bike/Ped/Transit 7-Studies	No
2021 Metropolitan Transportation Plan- <i>Innovation 2045</i>	January 6, 2021	171	41-Roadway 45- Studies 31-Multi-modal 22-Bike 15-Pedestrian 3-Transit 10- Freight 4-Safety	No (DeIDOT had WRA perform air analysis)

Before we could articulate where our MPO needs to go in the future, we had to understand where we had been and to do this, we reviewed previous MTPs. This slide shows each of the MTPs completed by our MPO from our first MTP in 1996 to our most recent MTP for 2021. Each of our previous MTPs had a **theme**, as shown in the first column starting with “*Getting From Here To There*” in 1996 to “*Vision 2040*” in 2017. You might remember that in December 2019, Helen Wiles sponsored a naming competition and the theme which had the most votes was, “***Innovation 2045***”.

You will also note on this slide, that each MTP update has a corresponding color. As described later in Chapter II, these colors were used by Mike Ward to help create our interactive GIS site so viewers could see the previous road projects as related to previous MTPs.

You will also notice that our proposed transportation project numbers have increased over past MTPs. Additionally, we expanded our project classification types from three in the 2017 MTP to eight for the 2021 MTP. These eight also align with our UPWP transportation study categories.

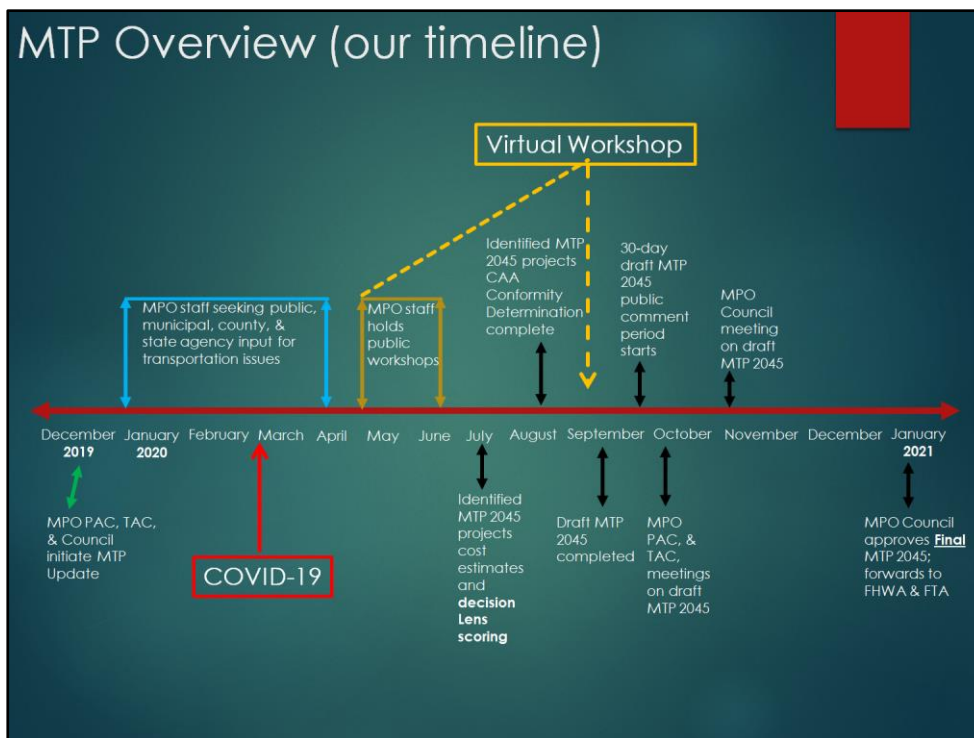
Lastly, Innovation 2045 MTP was written in-house by our MPO staff. The only contractor support was through DeIDOT who hired WRA to complete the required Air Conformity Determination (further discussed in Chapter V).



You might remember that one slide presented to this body back in December 2019. The slide represents the various competing interests when it comes to drafting a Metropolitan Transportation Plan or MTP.

Our overall approach was to collect and analyze this information in a manner which is interesting to our “main” stake holders- **Kent County citizens**. To do this, we:

1. Leveraged our new Web Site to archive and share our MTP development from now until the time the MPO Council approves the MTP (January 2021);
2. Assigned Helen Wiles (MPO Public Outreach Manager) with weekly MTP updates on all social media platforms;
3. Created interactive maps on our web site allowing 20-year trend analysis of data, regulation requirements, land use and other transportation long-range plans, funding constraints, and our MPO Partners transportation projects, studies, and policies; and
4. Provided our Public Advisory Committee (PAC), Technical Advisory Committee (TAC), and MPO Council with continual updates which those members can share with their communities, organizations, and agencies.



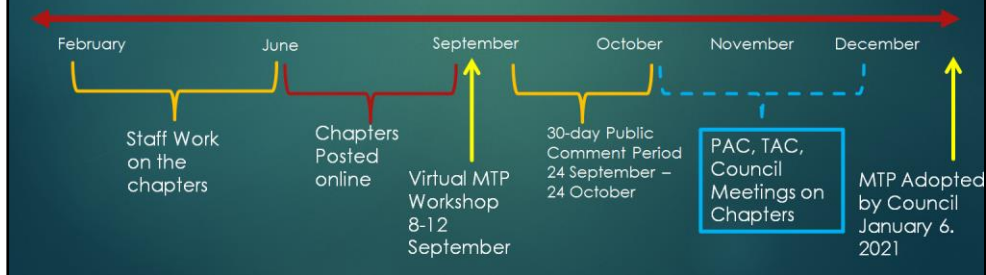
As presented to this body back in December 2019 during the PAC/TAC/Council Joint Meeting, this has been a **12-month process**.

From January through April 2020, the staff worked with a variety of state and local agencies to include the general public to ascertain future transportation need. Then Covid-19 came to town at the beginning of March 2020 and challenged face to face coordination and data collection with “virtual” meetings and data collection. As a result, our original “in-person” public workshop scheduled in May and June was pushed to September 2020, over a six day “virtual” public workshop (more in Chapter III). Although it was a virtual workshop, there were **75** individuals who visited the workshop as compared to **19** visitors for the 2017 MTP workshop. Other than the public workshops, the schedule has been met.

The final draft was advertised and published on September 24, 2020 for the required 30 day public comment period which ends on October 24, 2020. Comments received during this public comment period will be address and a final document published and considered during the joint PAC and TAC meeting schedule for this December 2020. The D/KC MPO Council is scheduled to vote on the Innovation 2045 MTP on January 6, 2021.

Innovation 2045 MTP

- ▶ Chapter I- Introduction
- ▶ Chapter II- Study Area Characteristics
- ▶ Chapter III- Public Participation
- ▶ Chapter IV- Operational and Management Strategies
- ▶ Chapter V- Environmental, Air Conformity, Environmental Justice
- ▶ Chapter VI- Financial Plan



The Innovation 2045 MTP consists of six chapters as seen on this slide. The timeline bar at the bottom of this slide shows the progression of the Innovation 2045 MTP. Staff worked on each chapter from February through June. As each draft chapter was completed in June, it was posted on our Innovation 2045 MTP web site for public and agency review and comment through August. The chapters and innovative GIS mapping project was available from September 8th through the 12th. The MTP was updated with a few changes and advertised for the required 30-day public comment and review period from September 24th through October 24th. Additional changes (if needed) will be made to the MTP before being considered by the MPO PAC and TAC in December as an “action item”. The MPO Council will consider and vote on adopting the Innovation 2045 MTP on January 6th, 2021.

Another important aspect found in the Innovation 2045 MTP, are reference documents hyperlinked through each chapter. These hyperlinks are active in the PDF versions available on our Innovation 2045 MTP website. The read can select the hyperlinked word and be directed to the reference document immediately.

The following slides provide a brief summary on each of the six chapters.

Chapter I (Introduction)

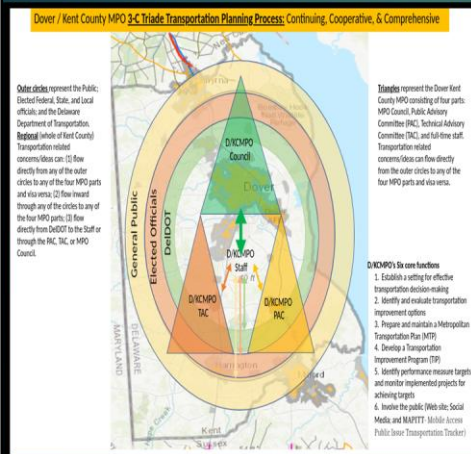
- ▶ Background Information
 - ▶ How the D/KC MPO works
 - ▶ Federal Transportation Planning
 - ▶ State Transportation Planning
 - ▶ Local Planning Transportation Planning
- ▶ Goals and Objectives
 - ▶ Safely move people and commodities efficiently on connected and reliable transportation networks;
 - ▶ Integrate multi-modal transportation with local land use decisions for healthier, stronger, and economically viable communities; and
 - ▶ Support transportation system preservation through enhanced system operations, management and sound environmental practices.
- ▶ Performance Measures

Chapter I provides a summary overview in 14 pages regarding the function of the D/KC MPO; when it was established and how it works. There is also background information regarding Federal Transportation Acts which since 1991, have shaped the D/KC MPO in addition to a Federal, State, and local transportation planning overview.

The second half of Chapter I is used to outline the Innovation 2045 MTP Goals, Objectives, and Performance Measures. In fact, the D/KC MPO staff published a video in April 2020 providing information to the public how Goals, Objectives, and Performance Measures were developed and requesting public input on the proposed three Goals and Objectives by **May 31, 2020**. The final draft Goals, Objectives, and Performance Measures were included in Chapter I and included in a summary video on Chapter I, published on **June 3, 2020**.

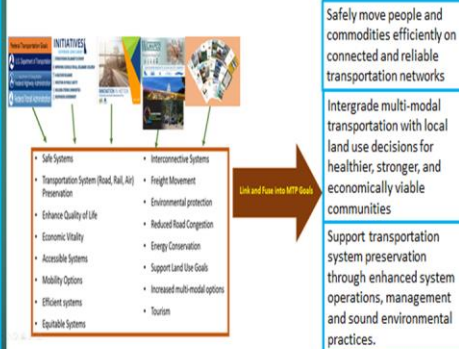
Chapter I (illustration)

How the D/KC MPO works



How MTP goals were developed

Innovation 2045 MTP Goal Development Process (Link and Fuse Federal, State, Regional, and Local Transportation Goals)



The image on the left provides an example found in Chapter I on how the Dover/ Kent County MPO works with the general public, elected officials, and DelDOT through our Public Advisory Council (PAC), Technical Advisory County (TAC), and MPO Council.

The image on the right provides a snapshot how we included aspects of Federal (FHWA and FTA) Transportation goals; Governor Carneys Initiatives for Delaware; Wilmapco and the Salisbury/Wicomico MPO's (regional) goals, and our Kent County and municipal (local) comprehensive plan goals. The boxed section on the left side of the image shows common goal adjectives which helped develop our three Innovation 2045 MTP goals as shown on the right side of the image.

Chapter II (Study Area Characteristics)

- ▶ General Area Characteristics
- ▶ Data
- ▶ Covid-19
- ▶ Population
- ▶ Economic Activity
- ▶ Highway and Roadway Systems
- ▶ Freight System
- ▶ Public Transit System
- ▶ Bicycle and Pedestrian Systems

This Chapter is the longest at 23 pages and provides a summary overview on the general area characteristics in Kent County (the study area), Delaware; the type of data collection and analysis; and how Covid-19 impact some of our data numbers.

The other characteristics as seen on this slide (Population through Bicycle and Pedestrian Systems) include more detailed information regarding baseline figures shown as 2020 data through the long range planning horizon year of 2045. Additionally, a summary paragraph for each characteristic is provided highlighting potential changes.

The following slide provides an example.

Chapter II (illustration)

Population

Dover/Kent County MPO Region Population data by MTP Year								
	1996	2001	2005	2009	2013	2017	2020	2045
Kent County	121,646	129,021	143,577	158,036	169,150	171,900	178,650	187,714
New Castle County	?	501,856	520,023	539,642	552,591	558,686	564,780	581,937
Sussex County	?	157,459	175,409	187,570	213,794	224,077	234,350	280,007

Note: Census data in 5 year increments as depicted in 2019 Delaware Population Consortium Report. MTP year 2001 used 2000 census data; 2009 used 2010 data; 2013 used 2015 data; 2017 used mid point increase from 2015 and 2020.

Level of Service (LOS)

Kent County Level of Service over time in Road Miles							Total road miles D, E, F LOS
Previous D/KC MPO MTP Year	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F	
1996				6.1	0	1.38	7.48
2001				9.3	0.56	1.9	11.76
2005				27.98	6.36	3.2	37.54
2009				18.79	7.63	1.32	27.74
2013				39.09	9.43	1.35	49.87
2017				62.63	35.3	17.63	115.56

Source: PDF LOS Maps

of road miles by road classification

Previous D/KC MPO MTP Year	Road miles (rural and urban) in Kent County Delaware by Road Classification								Daily Vehicles Miles Traveled		
	Interstate	Other Freeways Expways	Other Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local	Total	Total State Miles	Percent of KC Rds to State	KC Daily vehicle miles traveled
1996	0	57.9		75.06		261.83	918.41	1313.2	5,591.80	23%	1,179,315
2001	0	9.75	50.44	76.64	231.32	34.91	949.88	1352.94	5,813.05	23%	3,809,012
2005	0	10.13	50.06	111.58	182.66	86.65	992.82	1434.34	6,093.53	24%	4,545,409
2009	0	20.00	37.00	115.00	178.00	90.00	1,070.00	1,510.00	6,337.00	24%	4,181,000
2013	0	27.48	90.29	116.7	184.19	122.79	1,002.07	1,483.52	6,207.04	24%	4,517,772.54
2017	0	27.48	90.29	119.55	185.18	122.79	1,081.80	1,567.09	6,452.45	24%	4,590,087.72

Source: 11/21/19 e-mail from Mr. Jason Vogl (DelDOT)

These three images provide a small example of the illustrations found in Chapter II. Where applicable, staff color coded the previous MTP data years. As described in Chapter II, staff used MTP years to show past trends in lieu of typical 10 year trends (i.e. 2000, 2010, 2020, etc..)

Chapter III (Public Participation)

- Why Public Outreach is Important
- Background on MPO Public Outreach Initiative
- Using Public Outreach in Development of the Plan
- Surveys and Polls
- Surveys
- Survey results
- The Money Game
- Public Workshops
- News Coverage
- Advertising
- Social Media Campaign
- Prioritization Working Group
- Comments and Prioritization
- General Comments at Meetings
- Comprehensive Plans
- Story/Interactive Maps
- Getting At Risk and Underserved Population Involved

Chapter III is one of the shortest chapters with 7 pages but do not judge the level of effort put into public participation, especially by our Public Outreach Manager, Helen Wiles. Although this chapter in the MTP describes each one of the 20 listed actions on this slide, Helen leveraged her social media skills to reach out to the Kent County public from Facebook parties to multiple videos and interviews.

Chapter III (illustration)

☒ Watch Videos

☒ Past MTPs

Outreach Efforts (so far)

- Business Cards
- Social Media
- Website
- Surveys
- Videos
- An ad in the CDCC book
- A pull-down ad on USB
- Website
- An email blast to 35,000 people in Kent County
- Money Game (see circle)
- Live Party on Facebook

Have done 1 in Dover and Scheduled 2 more. Have scheduled 3 in Milford. Have scheduled one weekend in Camden Walmart.

Still Looking for Volunteers! Come give us a Hand!!

Presentations and Resources

Introduction to the Metropolitan Transportation Plan

Economic Growth

Safety

Congestion

Air Quality

DOVER/KENT COUNTY MPO
METROPOLITAN PLANNING ORGANIZATION

www.innovation2045.com

Innovation 2045
needs you now more than ever!

GO TO INNOVATION2045.COM TO READ DRAFT CHAPTERS, WATCH COMPANION VIDEOS, AND MAKE COMMENTS

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This slide is a small representation of all the outreach efforts Helen made for the Innovation 2045 MTP. In addition to videos she produced summarizing each of our six chapters, she also included instructions in Spanish, allowing Spanish speaking public members to participate in the MTP virtual workshop. One interesting trend Helen found was that there were 19 individuals who attend the 2017 MTP public workshop as compared to 75 visitors to the 2021 MTP virtual public workshop.

Chapter IV (Operational and Management Strategies)

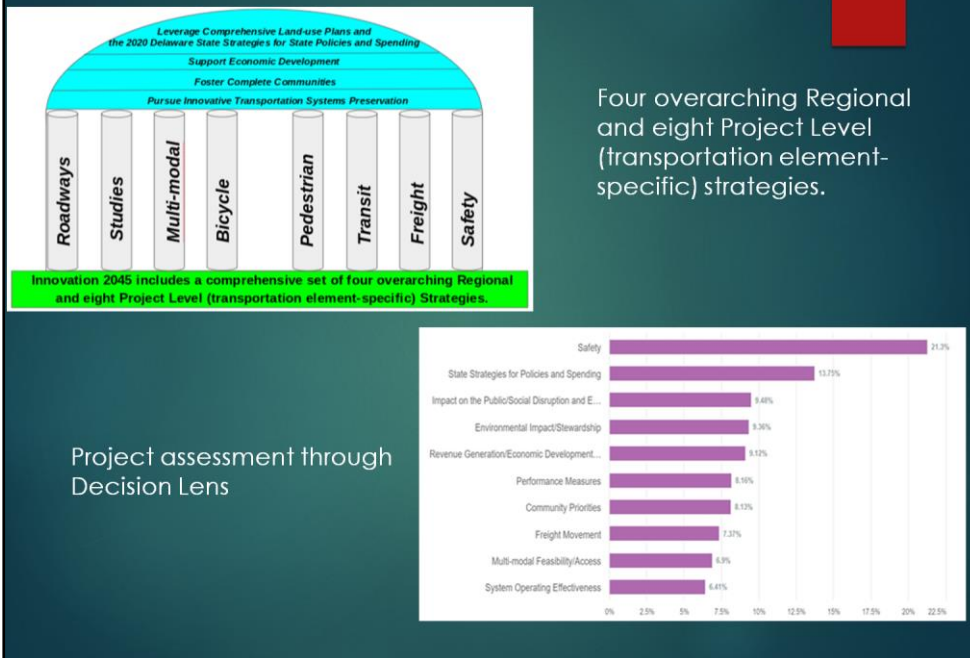
- ▶ D/KC MPO Overarching Strategies
 - ▶ Partner Comprehensive Plans and State Strategies
 - ▶ Support Economic Development
 - ▶ Foster Complete Communities
 - ▶ Innovative Transportation System Preservation
- ▶ D/KC MPO Project level Strategies
 - ▶ Roadways
 - ▶ Studies
 - ▶ Multi-modal
 - ▶ Bicycle
 - ▶ Pedestrian
 - ▶ Transit
 - ▶ Freight
 - ▶ Safety

Chapter IV provides the strategic approach by describing our strategies in 12 pages. The four strategies and eight project level strategies listed on this slide are all linked through the D/KC MPO Decision Lens Project Priority Process, support of our Federal and State partners strategies, and integration with our Local partners' economic and land-use policies.

For example, each proposed 171 MTP transportation projects are categorized into one of the eight project level strategies and is assigned a quantitative value based on how that project supports ten screening criteria (found in Chapter VI and seen on the next slide). If the project supports multiple screening criteria, the more quantitative value the project can receive. The ten screening criteria support all four of the overarching strategies. The higher the quantitative value received, more aspects of the four overarching strategies that project supports and the better priority ranking the project receives regarding funding.

Specific to Innovation 2045, Decision Lens was used to evaluate and score transportation projects categorized in any one of the eight categories (also referred to as Project Level (Transportation Element) Strategies) to establish funding priorities. Elements of the four overarching regional strategies, Federal and State partners strategies, and integration with our Local partners' economic and land-use policies **are all linked through the D/KC MPO Decision Lens Project Priority Process** when considering funding priority for any transportation project within the eight project categories (Transportation Elements).

Chapter IV (illustration)



The image on the top left illustrates our four overarching regional strategies and how they link to our eight project level strategies. These four overarching strategies are specifically link through the Decision Lens **ten screening criteria** process when considering any one of the eight transportation projects (also known as transportation elements in this MTP). This process ensures that even as an individual transportation project in any one of the eight categories or elements, that individual project supports the overarching regional strategies. Hence, the eight transportation elements become project level strategies in of themselves.

The image on the lower right shows the ten screening criteria in our decision lens process. Safety is the highest criteria worth 21.3% whereas System Operating Effectiveness is the lowest worth 6.41% of an individual transportation projects score. Decision Lens is a major aspect of our strategy by applying technical judgement about the transportation project's ability to:

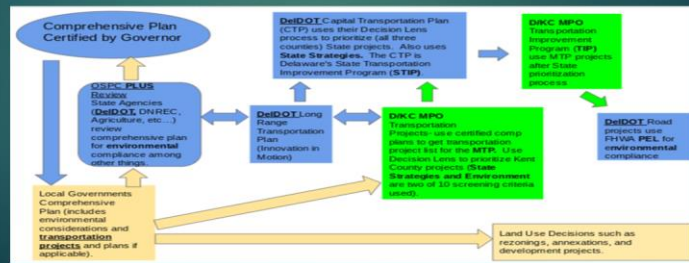
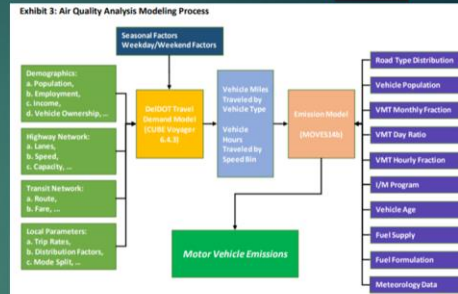
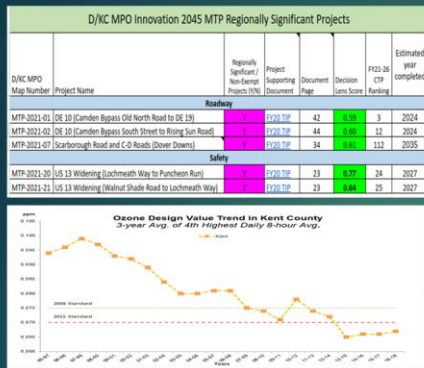
- meet national, regional, and state transportation planning objectives;
- apply national and state performance measures;
- consider state and local land use planning and policy initiatives;
- include environmental considerations; and
- evaluate social justice concerns.

Chapter V (Environmental, Air Quality, Environmental Justice)

- ▶ Background
- ▶ Environmental Analysis
- ▶ Air Quality
- ▶ Innovation 2045 MTP Conformity Determination
- ▶ Environmental Justice
- ▶ Mitigation Efforts

The D/KC MPO leverages Long Range and Comprehensive Planning efforts by our Federal, State, Regional, and Local MPO partners (briefly described in Chapters I and IV). These long range and comprehensive planning documents address environmental impacts resulting from future growth scenarios. While land-use decisions are decided at the local county, and municipal levels, transportation infrastructure construction, maintenance, and service is mostly a state responsibility. Local land-use decisions rely on future growth scenarios described in comprehensive plans that are certified by the State through the Office of State Planning Coordination (OSPC). The plans also identify potential environmental impacts that may occur from future growth, the annexation of land, and proposed long range development, economic, or transportation projects.

Chapter V (illustration)



Chapter VI (Financial Plan)

- ▶ Project Selection and Decision Lens Analysis
- ▶ Financial Reasonable/Constrained Projects
- ▶ Unfunded Aspiration Projects

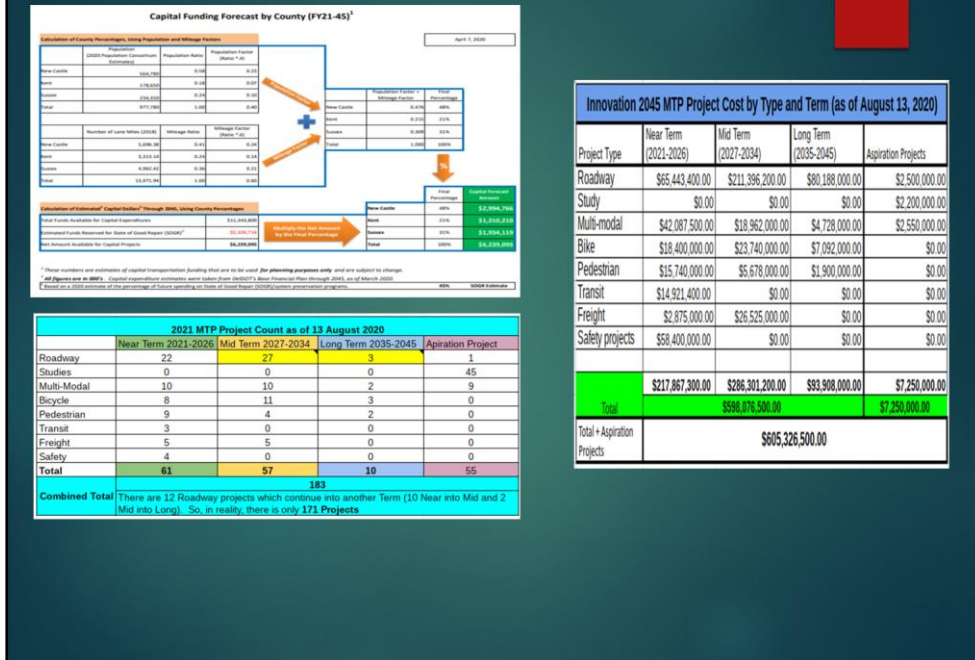
Projects identified and listed in the Innovation 2045 MTP came from the previous D/KC MPO MTP (Vision 2040), D/KC MPO Partners Comprehensive Plans, and project recommendations from Federal, State, Regional, and Local governmental agencies. The compiled projects listed in the MTP are also broken out into Near-term (2021-2026), Mid-term (2027-2034), Long-term (2035-2045), and Aspiration project categories.

As previously mentioned, Decision Lens is a software prioritization and resource optimization system which allows the D/KC MPO to make funding decisions in a project prioritization and resource allocation manner based on **ten screening criteria** and provides a prioritization evaluation and ranking on the **171 proposed Innovation 2045 MTP projects** out to the year 2045. Although there are ten screening criteria, **22 quantitative elements** are used to generate any transportation projects' value.

Most of these projects in the Near Term, Mid Term, Long Term, and Aspiration columns (as seen on the next slide) came from the various transportation studies, MPO partner comprehensive land use plans, the previous 2017 D/KC MPO MTP, and the most recent Transportation Improvement Program (TIP). These projects are listed in appendix A and have hyperlinks to the documents and annotated the page numbers where the project can be located within that document.

Federal regulations require transportation improvement projects to be included in a metropolitan transportation plan (MTP) and that these projects also be considered "financially responsible." This phrase means that all of the listed Innovation 2045 MTP transportation improvement projects cannot exceed the amount of reasonably expected revenues projected from identified federal, state, and local funding sources.

Chapter VI (illustration)

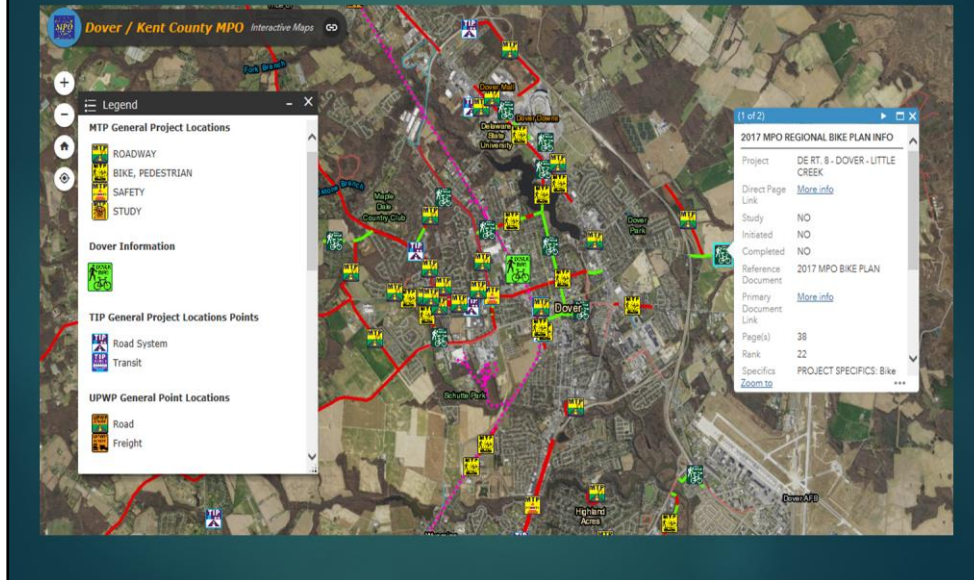


The top left image showing DelDOT projects of **\$1.3 Billion dollars** for Capitol Transportation Projects in Kent County from 2020 through 2045. For Innovation 2045 MTP to be considered **financially reasonable**, the proposed projects listed in the plan can not exceed 1.3 billion.

The image in the lower left shows the number of proposed projects in our eight categories planned from 2021 through 2045. The aspiration projects are those not specifically earmarked for the Near, Mid, or Long Term funding projects, however, they may be considered over time should additional cost estimated be produced.

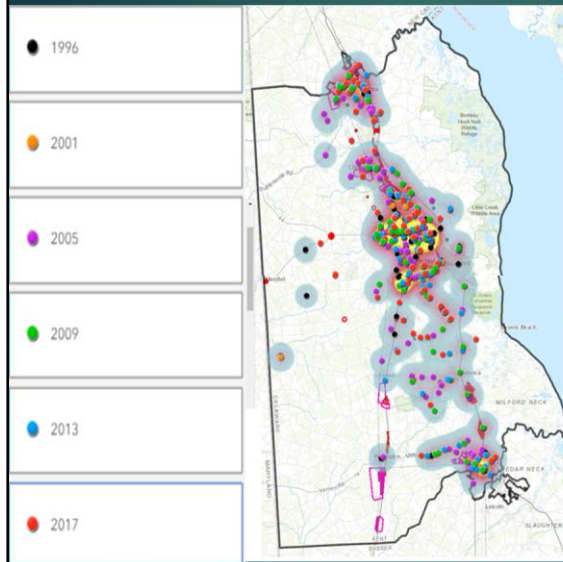
The last image on the right side shows the total estimated dollar amount in each of the eight project categories. The total estimated cost projections from 2021 through 2045 is **\$605** million which is less than the project DelDOT Capital estimate of \$1.3 Billion, therefore, our MTP is considered financially reasonable.

MTP Data Used (cont.)- MTP Project Location



As shown in the previous slide, the goal is to map how Kent County has since 1996. This slide provides one example of a GIS map layer showing the 2017 MTP projects, the 2017 Regional Bike projects; 2019 Transportation Improvement Projects (TIP); and 2019 UPWP study locations. In addition to showing the locations, each project will have an associated data sheet which provides additional detail. Going forward, these data sheets will help provide citizens and other agencies information such as who recommended that project (MPO Partner, etc...) and the status of that project (i.e. In the **CTP/funded; under construction; completed; or not pursued**). More importantly, if the project is no longer pursued by the MPO, include additional information as to why the project was not pursued.

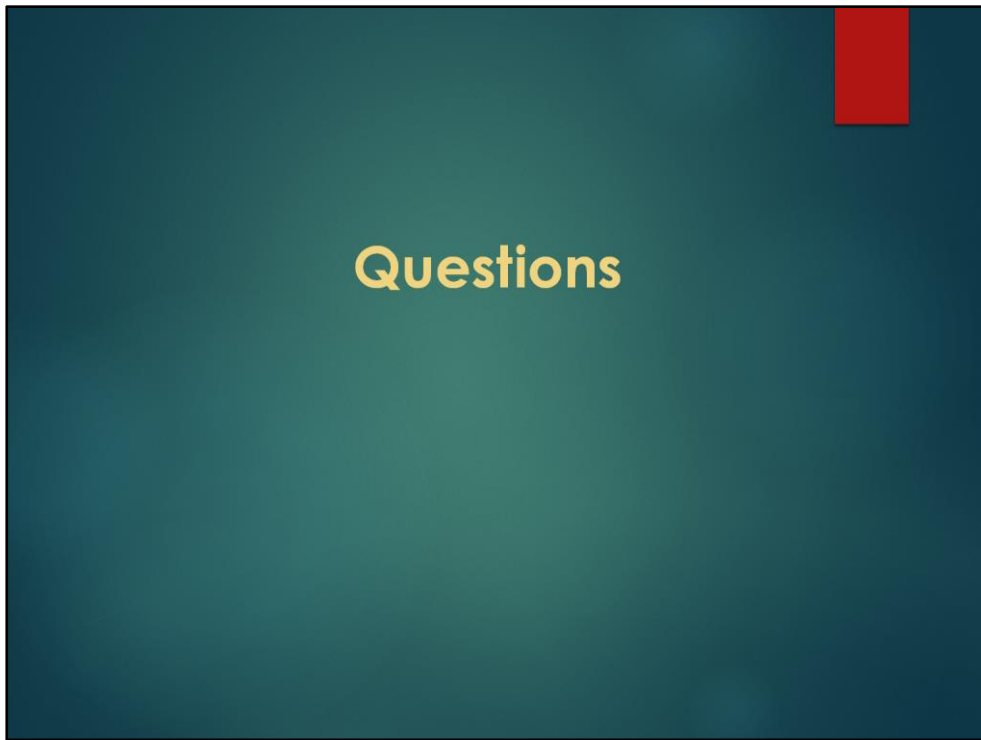
MTP Data Used (cont.)- Data Trend Analysis



Trend Analysis

- Locations of previous MTP Projects
- How successful were MTP project identification locations in comparison (including but no limited) to:
 - Industrial and commercial areas;
 - Environmental concern areas;
 - Social economic concerns (low income neighborhoods, etc.);
 - Reduction in accidents;
 - Improvement in travel time and level of service on roadways;
 - Population changes (new residential subdivision locations);
 - Economic activity (new commercial sites, etc.);
- New Roads built in comparison to bike lanes/sidewalks built/created, and bus/transit service established.

This slide provides an example of the geographic locations of our previous six MTP projects. As stated on the right side of the slide, we will use the mapped 28 data elements shown on slide #13 to analyze current trends and to show how Kent County has changed over time since 1996 using GIS map layers to model future/predictive changes. We could use these predictive change locations in Kent County when considering future transportation projects and possibly give more weight for projects (when prioritizing the MTP projects through Decision Lens) located in areas where changes appear to be occurring in Kent County.



What are your questions?

Thank you.